

Docket No.: 1670.1013

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

Se Jun HEO, et al.

Serial No. 10/645,846

Group Art Unit: 2879

Confirmation No. 8145

Filed: August 22, 2003

Examiner: Mariceli Santiago

For: ELECTROLUMINESCENT DEVICE AND METHOD OF MANUFACTURING THE SAME

**COMMENTS REGARDING STATEMENT OF REASONS FOR ALLOWANCE**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sirs:

A Statement of Reasons for Allowance was forwarded in the Notice of Allowability mailed March 22, 2007.

MPEP §1302.14 states, in part:

Where specific reasons are recorded by the examiner, care must be taken to ensure that statements of reasons for allowance (or indication of allowable subject matter) are accurate, precise and do not place unwarranted interpretations, whether broad or narrow upon the claims. The examiner should keep in mind the possible misinterpretations of his or her statement that may be made and its possible estoppel effects.

The Examiner characterizes certain features of various claims. However, the Examiner has not recited the appropriate language for the appropriate claims as pending and allowed in the application.

By way of example, base 1 defines an electroluminescent display EL device comprising:

a substrate;  
a first electrode unit comprising:

first electrodes formed on the substrate as a plurality of parallel evenly spaced lines, and  
first electrode terminals connected to the respective first electrodes;  
a second electrode unit comprising:  
second electrodes formed in an orthogonal direction with respect to the first electrodes over the first electrodes, and  
second electrode terminals connected to the respective second electrodes;  
an emission area formed where the first electrodes intersect the second electrodes;  
an electroluminescent layer disposed between the first electrodes and the second electrodes in the emission area;  
an inter insulating layer provided under the electroluminescent layer and covering a space between each of the plurality of lines of the first electrodes and an edge portion of a top surface of each of the plurality of lines of the first electrodes; an outer insulating layer between the emission area and the second electrode terminals, wherein the outer insulating layer comprises an insulating material formed to contact at least an edge of the second electrode terminals facing the emission area so as to reduce a steepness of a step between the second electrode terminals and the substrate; and  
a buffer layer provided over a top surface of the substrate to maintain smoothness of the top surface of the substrate and to prevent impurities from being introduced from the substrate.

By way of another example, base claim 17 defines an electroluminescent display EL device comprising:

a substrate;  
a first electrode unit comprising:  
first electrodes formed on the substrate as a plurality of parallel evenly spaced lines, and  
first electrode terminals connected to the respective first electrodes;  
a second electrode unit comprising:  
second electrodes formed in an orthogonal direction with respect to the first electrodes over the first electrodes, and  
second electrode terminals connected to the respective second electrodes;  
an emission area formed where the first electrodes intersect the second electrodes;  
an electroluminescent layer disposed between the first electrodes and the second electrodes in the emission area;  
an insulating layer formed under the electroluminescent layer; and  
a buffer layer provided on a top surface of the substrate to maintain smoothness of the top surface of the substrate and to prevent impurities from being introduced from the substrate;

wherein the insulating layer is provided between each of a plurality of lines of the first electrodes and an edge portion of a top surface of each of the plurality of lines of the first electrodes, and at a space between the second electrode terminals and the first electrode adjacent thereto, and

wherein the insulating layer covers an edge of the second electrode terminals facing the emission area outside the emission area so as to reduce a steepness of a step between the second electrode terminals and the substrate.

Alternatively, base claim 21 defines a method of manufacturing an electroluminescent display EL device, the method comprising:

forming first electrode terminals and second electrode terminals along edges of a substrate;

forming first electrodes having a predetermined pattern, the first electrodes connected to the first electrode terminals;

forming an insulating layer covering at least a space between each of a plurality of lines of the first electrodes, an edge portion of a top surface of each of the plurality of lines of the first electrodes, and at a space between the second electrode terminals and the first electrode adjacent thereto;

forming an electroluminescent layer on at least each of the first electrodes; forming second electrodes on the electroluminescent layer orthogonally with respect to the first electrodes,

wherein the second electrodes are connected to the second electrode terminals, wherein the insulating layer covers an edge of the second electrode terminals facing an emission area so as to reduce a steepness of a step between the second electrode terminals and the substrate, and

wherein a buffer layer is formed on a top surface of the substrate to maintain smoothness of the top surface of the substrate and to prevent impurities from being introduced from the substrate.

The foregoing is merely meant to be exemplary, and does not point out all of the discrepancies between the Examiner's Statement of Reasons for Allowance and the claimed features of the currently pending claims.

For example, in addition to the buffer layer provided over the top surface of the substrate, which has been characterized by the Examiner as being allowable over the cited prior art, there are further limitations in base claims 1, 17 and 21, that are not disclosed or suggested by the Examiner, including, for example, as shown in FIG. 5 and FIG. 6, first electrodes (52) and their terminals (62) are **orthogonal** with respect to second electrodes (54) and their terminals (64), and an EL layer is disposed on an emission area between the first electrodes (52) and the second electrodes (54). In addition, an inter insulating layer (56) is formed under the EL layer to cover spaces between each of the lines of the first electrodes (52) and **an edge portion** of a top

surface of each of the lines of the first electrodes (52). Likewise, an outer insulating layer (66) is formed to cover the edge of the second electrode terminals facing the emission area in order to reduce a steepness of a step between the second electrode terminals and the substrate. As a result, Applicants respectfully submit that the claims speak for themselves and should not be interpreted based on the Examiner's characterizations of same. It is also submitted that the claims provide their own best evidence as to the reasons for allowance.

In summary, it is submitted that the Examiner's Statement "raises possible misinterpretations... and possible estoppel effects" (M.P.E.P. §1302.14) and is therefore improper.

Respectfully submitted,

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